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REPORT NO. 14

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Cotton Fiber and Processing Test Results

CROP of

1972



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 February 16, 1973

This is the fourteenth, and last, report on fiber and processing test results on the 1972 cotton crop. These reports were issued twice each month during the harvesting season, and will be summarized in a comprehensive report to be issued in early spring. This 1972 group of reports gives data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1971", April 1972. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, Ten 38117.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1972
Discussion of Test Results

Cotton testing laboratories of the Agricultural Marketing Service, USDA, report that fibers from the Southwestern short staple samples tested through February 9, 1973 are longer and coarser than through the end of the season last year. Shirley Analyzer nonlint content and picker and card waste are lower. Yarns spun from these samples are stronger and have higher appearance grades. Yarn imperfections are less than a year ago. Average spinning potential yarn number is higher.

Averages for all medium staple samples tested this season show about the same fiber test results as a year ago. Yarns spun from these samples show fewer imperfections than a year ago. Average spinning potential yarn number is higher.

South Central medium staple samples are shorter and stronger than through the end of last season. Yarns spun from these samples show about the same yarn qualities as last season.

No additional Southeast, Southwest or Western medium staple samples were received during this report period.

Averages for all long staple samples tested this season are stronger at zero gage strength than a year ago. Picker and card waste and comber waste are lower than through the end of the season last year. Yarns spun from these samples show lower yarn appearance grades. Average spinning potential yarn number is higher this season.

No additional long staple samples were received from any of the areas during this report period.

Extra long staple, American upland, samples from the West are more uniform and stronger at 1/8" gage strength than through the end of the season last year. Shirley Analyzer nonlint content and comber waste are higher this year. Yarns spun from these samples show fewer imperfections than last season.

No additional American Pima, extra long staple samples were received from the West during this report period.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States
1/
through February 9, 1973

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results								
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.				
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections					
				Pct.			Rdg.	Mpsi				G/tex	Pct.	Lbs.	Index	No.
No.																
Short Staple:																
Southwest																
65		0.95	45	3.8	79	20	4.4	7.2	86	112	40	37				
57		0.97	45	4.1	79	21	3.7	6.8	94	116	29	46				
Medium Staple:																
Southeast																
68		1.08	45	4.4	79	22	3.4	6.6	99	109	20	61				
61		1.08	45	4.3	83	23	3.0	6.2	104	104	16	66				
South Central																
142		1.10	44	4.3	81	22	3.0	5.9	103	112	20	62				
168		1.08	45	4.3	83	23	2.9	6.1	102	109	19	63				
Southwest																
46		1.04	44	4.0	84	22	3.8	6.5	102	113	35	55				
49		1.06	45	4.1	82	22	3.5	6.6	100	113	28	60				
West																
60		1.12	45	4.2	92	25	2.7	5.3	121	120	24	70				
60		1.09	45	4.4	90	24	2.6	5.5	110	121	17	66				
U.S. Average																
316		1.09	44	4.3	83	23	3.1	6.0	105	113	23	62				
338		1.08	45	4.3	84	23	3.0	6.1	104	112	20	64				
Significant dif- ference 2/																
		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3				

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table. These guides are
based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States
through February 9, 1973

1/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results					Processing Test Results											SPY
		Length		Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality								
		Span	Unif		Zero gage	1/8" gage				carded	Strength carded	Lbs. carded	Lbs. combed	Indx carded	Indx combed	Imprfctns card	comb	
<u>Long Staple:</u>																		
Southeast																		
1971	16	1.14	43	4.3	79	22	4.2	9.7	17.2	102	118	109	118	22	10	65		
1972	19	1.12	44	4.3	85	24	3.6	8.5	16.9	107	123	102	117	24	10	68		
South Central																		
1971	3	1.22	43	4.5	83	24	5.3	9.6	16.4	113	130	107	117	20	9	70		
1972	4	1.16	44	4.0	88	24	4.2	8.8	16.0	116	131	100	110	20	11	75		
West																		
1971	15	1.16	44	3.5	92	25	2.4	8.8	17.3	127	146	95	103	27	15	77		
1972	15	1.17	44	3.6	91	25	2.5	7.2	15.6	126	145	91	100	26	13	86		
U. S. Average																		
1971	34	1.16	43	4.0	85	24	3.5	9.3	17.2	114	131	103	111	24	12	71		
1972	38	1.15	44	4.0	88	24	3.4	8.2	16.2	116	133	98	109	23	11	76		
<u>Array</u>																		
American Upland																		
50s Combed Yarn																		
Extra Long Staple:																		
West																		
1971	2	1.41	30	4.0	105	30	2.0	8.2	16.0	66			100		10			
1972	3	1.40	32	4.0	104	33	2.5	8.3	16.6	64			100		6			
American Pima																		
1971	24	1.45	31	3.8	99	33	2.7	8.5	17.6	65			112		4			
1972	21	1.44	32	3.6	97	32	2.7	7.9	17.7	63			113		3			
Significant Difference 2/		0.02	2	0.2	2	1	0.5	0.5	0.5	4(22s)	5	5	5	2	2	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple 32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential	
				2.5% span	Unif		Zero	1/8" Gage			Mpsi	G/tex		Pct	Pct	8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22sor 27 tx		8s or 74 tx
SOUTHWEST AREA																							
NORTHWEST TEXAS																							
BROWNFIELD																							
3	SLM	LT SP	42	31	0.96	43	2.7	69	20	8.6	4.8	3	4	8.0	294	87	9.6	8.2	100	70	100	67	42
LARIAT																							
3	SLM	TG	44	30	0.94	46	3.0	77	22	7.4	4.7	6	7	7.8	310	94	8.2	7.0	110	110	63	41	44
SEMINOLE																							
3	SLM	LT SP	42	31	0.94	46	4.5	74	20	6.6	3.8	3	3	6.9	299	91	7.7	6.5	120	120	39	27	43
WESTERN AREA																							
NEW MEXICO																							
CAUSEY																							
3	SLM	TG	44	30	0.90	45	2.7	79	22	7.2	6.6	7	8	9.8	315	97	8.0	7.0	110	90	74	47	40

* 100 percent selected for tests, less than 100 percent in the area

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results						Processing Test Results - Carded Yarns													
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprct'ns		Spin. Potent-ial	
				2.5% span	Unif.		Zero	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		
Name & Code				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No		
SOUTH CENTRAL AREA																							
ARKANSAS																							
ALTHEIMER																							
4	LM	51	35	1.11	41	3.3	85	DELTA PINE 16	24	7.7	3.4	4	2	5.7	111	39	6.4	4.8	120	90	27	21	62
BAY																							
4	SGO	61	34	1.06	42	4.3	83	STONEVILLE 213	21	6.1	4.2	6	2	6.0	91	27	5.2	3.4	120	90	18	15	51
DUMAS																							
4	LM	51	34	1.11	44	4.5	83	STONEVILLE 213	21	6.2	3.4	4	2	5.4	101	35	6.0	4.4	120	100	18	13	59
GRADY																							
4	LM	51	34	1.09	43	3.9	84	DELTA PINE 16	23	7.5	2.6	4	2	6.2	109	38	6.1	4.8	120	90	17	14	65
HELENA																							
4	LM	51	34	1.11	44	4.4	81	STONEVILLE 213	21	7.2	4.8	4	2	6.6	102	35	5.6	4.2	120	90	18	11	59
HUGHES																							
4	LM	51	34	1.06	43	4.4	80	STONEVILLE 213	20	6.3	3.4	4	2	6.8	90	29	5.2	4.1	120	80	24	17	50
LOUISIANA																							
SHREVEPORT																							
4	SLM	41	34	1.10	43	3.8	81	DELTA PINE 16	23	7.7	2.6	2	2	6.0	103	36	6.4	4.7	110	80	25	18	61
MISSOURI																							
HELL CITY																							
4	LM	51	33	1.05	42	3.7	76	STONEVILLE 213	19	6.6	3.0	4	2	6.5	89	28	6.3	4.5	100	80	22	15	49

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Comber Waste	Strength	Elongation	Appearance Index	Imprfect'ns	Spin. Poten- tial					
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel											
				32s				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct		Lbs	Lbs	Pct	Pct	No

WESTERN AREA

ARIZONA

AQUILA

4 SIM

DEL CERRO

100 PERCENT

41 40 1.40 32 4.0 104 33 6.0 2.8 2 2 8.0 16.5 65 35 4.7 4.2 100 100 5 4